



# GE CASE

## Stress ECG

### Imported Data Elements

<b>Effective date</b>	2021-04-26
<b>Device interface version</b>	8.0
<b>Document version</b>	1

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## Introduction

The GE CASE Stress system data elements that are supported for import into ASCEND are listed in the following tables where

- ASCEND report is the label used to identify the finding within the knowledge base
- CASE XML location is an XPath expression for the data in the CASE ECG XML. The actual value resides in child element named “Value”
- Element/Value is the string text of the XML element or attribute that must be present in CASE ECG to trigger import

## Scope of GE CASE Stress Import

### *Patient Demographics*

ASCEND report	CASE XML location	Element/Value	Comments
Age (disabled by default)	PatientInfo/Age		Age in years
Birthdate (disabled by default)	PatientInfo/BirthDateTime /(Day, Month,Year)		
Race: Asian (disabled by default)	PatientInfo/Race	Asian	Not case sensitive
Race: Black (disabled by default)	PatientInfo/Race	African or black	Not case sensitive
Ethnicity: Hispanic (disabled by default)	PatientInfo/Race	Hispanic	Not case sensitive
Race: Pacific Islander (disabled by default)	PatientInfo/Race	Filipino	Not case sensitive
Race: White (disabled by default)	PatientInfo/Race	Caucasian or white	Not case sensitive
Gender: Female (disabled by default)	PatientInfo/Gender	FEMALE	
Gender: Male (disabled by default)	PatientInfo/Gender	MALE	
Height	PatientInfo/Height		Inches or centimeters
Weight	PatientInfo/Weight		Pounds or kilograms

***Study Date and Time, in Study Data***

ASCEND report	CASE XML location	Element/Value	Comments
Study date	ObservationDateTime/(Day, Month, Year)		dd- mm-yyyy format
Study time	ObservationDateTime (Hour, Minute, Second)		hh:mm:ss format

***Study protocol, in Study data***

ASCEND report	CASE XML location	Element/Value	Comments
Protocol: Bruce	Protocol/ProtocolName	BRUCE	
Protocol: Modified bruce	Protocol/ProtocolName	MODIFIED BRUCE	
Protocol: Naughton	Protocol/ProtocolName	NAUGHTON	
Protocol: Balke	Protocol/ProtocolName	BALKE	
Protocol: Ellestad	Protocol/ProtocolName	ELLESTAD	
Protocol: Bicycle	Protocol/ProtocolName	CYCLE	
Stress medication: Adenosine	Protocol/Phase/ProtocolName	ADENOSINE	
Stress medication: Dipyridamole	Protocol/Phase/ProtocolName	DIPYRIDAMOLE	
Stress medication: Dobutamine	Protocol/Phase/ProtocolName	DOBUTAMINE	
Stress medication: Regadenoson (Lexiscan)	Protocol/Phase/ProtocolName	LEXISCAN	
Protocol: TEXT	Protocol/Phase/ProtocolName	<i>Value other than above</i>	

***Procedure narrative – pharmacologic protocol***

ASCEND report	CASE XML location	Element/Value	Comments
Pharmacologic protocol	Protocol/Phase/ProtocolName	<i>Any med value below</i>	
Adenosine	Protocol/Phase/ProtocolName	ADENOSINE	
Dipyridamole	Protocol/Phase/ProtocolName	DIPYRIDAMOLE	
Dobutamine	Protocol/Phase/ProtocolName	DOBUTAMINE	
Regadenoson (Lexiscan)	Protocol/Phase/ProtocolName	LEXISCAN	

## GE CASE Stress ECG Imported Data Elements

ASCEND report	CASE XML location	Element/Value	Comments
Target HR	Interpretation/ReasonForTermination	Target heart rate achieved	
Fatigue (unspecified)	Interpretation/ReasonForTermination	Fatigue	

### ***Procedure narrative – exercise protocol***

ASCEND report	CASE XML location	Element/Value	Comments
Protocol: Bruce	Protocol/Phase/ProtocolName	BRUCE	
Protocol: Modified bruce	Protocol/Phase/ProtocolName	MODIFIED BRUCE	
Protocol: Naughton	Protocol/Phase/ProtocolName	NAUGHTON	
Protocol: Balke	Protocol/Phase/ProtocolName	BALKE	
Protocol: Ellestad	Protocol/Phase/ProtocolName	ELLESTAD	
Protocol: Bicycle ergometry	Protocol/Phase/ProtocolName	CYCLE	
Protocol: TEXT	Protocol/Phase/ProtocolName	<i>text other than above</i>	
Duration	ExerciseMeasurements/ExercisePhaseTime		
Final stage	count(Protocol/Phase[PhaseName='EXERCISE']/Stage)/Stage		
Maximal work rate	ExerciseMeasurements/PeakExStats/PeakExMets		
Target HR	Interpretation/ReasonForTermination	Target heart rate achieved	
Protocol complete	Interpretation/ReasonForTermination	Protocol complete	
	Interpretation/ReasonForTermination	completion	
Fatigue (unspecified)	Interpretation/ReasonForTermination	Fatigue	

### ***Stress Table – (per stage)***

ASCEND report	CASE XML location	Element/Value	Comments
TEXT	Protocol/Phase/Stage/(PhaseName+StageName)	<i>Concatenated text</i>	
Velocity*	TrendData/TrendEntry/Speed		Mph or km/h*
Grade*	TrendData/TrendEntry/Grade		% incline
Duration	Protocol/Phase/Stage/StageDuration		

## GE CASE Stress ECG Imported Data Elements

ASCEND report	CASE XML location	Element/Value	Comments
Time into test	TrendData/TrendEntry/EntryTime		
Metabolic rate*	TrendData/TrendEntry/Mets		mets
HR	TrendData/TrendEntry/HeartRate		bpm
Systolic BP	TrendData/TrendEntry/SystolicBP		mmHg
Diastolic BP	TrendData/TrendEntry/DiastolicBP		mmHg
Comments	TrendData/TrendEntry/Changes   Symptom		

Note: each stage in the stress table may be comprised of multiple trend entries, containing data that includes phase time, velocity, grade, METs, heart rate, and blood pressure. In GE CASE v6.73, stage entry time (<EntryTime></EntryTime>, *Time into test* in ASCEND) is taken from the first trend entry for each stage, while velocity, grade, METs, heart rate, and blood pressure come from the last trend entry in the stage. In the event heart rate and blood pressure is missing from the last trend entry for the stage, the missing measurement is taken from the last available trend.

\* Exercise-only stress data.

Pharmacological protocol name and procedure narrative imports in the report. The stress table is presumed to be recorded appropriately in the GE CASE device, and no exercise-only stress data will be exported from the GE CASE device during a pharmacological stress study.

### ***Stress Data Heart Rate Response***

ASCEND report	CASE XML location	Element/Value	Comments
Max HR achieved	ExerciseMeasurements/MaxHeartRate		bpm
% max predicted HR	ExerciseMeasurements/PercentAchievedMaxPredicted		%
Max predicted HR	ExerciseMeasurements/MaxPredictedHR		Bpm
Achieved	ExerciseMeasurements/TargetHeartRate/@achieved	yes	
Not achieved	ExerciseMeasurements/TargetHeartRate/@achieved	no	
Rate-pressure	ExerciseMeasurements/PeakExStats/PeakExRPP		mmHg/min

### ***Stress ECG Conclusions\****

ASCEND report	CASE XML location	Element/Value	Comments
Exercise time	ExerciseMeasurements/ExercisePhaseTime		
Max ST deviation	DukeTreadmillScore/STDeviation		mV or mm (assumes 10mm/mV for mm units)

## GE CASE Stress ECG Imported Data Elements

ASCEND report	CASE XML location	Element/Value	Comments
0 - none	DukeTreadmillScore/AnginalIndex	None	
1 - non-limiting	DukeTreadmillScore/AnginalIndex	Nonlimiting	
2 - exercise-limiting	DukeTreadmillScore/AnginalIndex	Limiting	
Duke score	DukeTreadmillScore/Score		
Low risk	DukeTreadmillScore/Risk	Low	
Moderate risk	DukeTreadmillScore/Risk	Moderate	
High risk	DukeTreadmillScore/Risk	High	
Normal rhythm, conduction	Interpretation/Arrhythmias	none	
Isolated ventricular ectopy	Interpretation/Arrhythmias	ventricular premature beats-isolated	
Ventricular couplets	Interpretation/Arrhythmias	ventricular premature beats-couplets	
Atrial ectopy	Interpretation/Arrhythmias	atrial premature beats	

### ***Risk Factors (disabled by default)***

ASCEND report	CASE XML location	Element/Value	Comments
Nonsmoker	RiskFactors/Smoker	no	
Current smoker	RiskFactors/Smoker	yes	
No diabetes	RiskFactors/Diabetes	no	
Diabetes (present)	RiskFactors/Diabetes	yes	

#### Notes:

- Protocol values TEXT nodes are not case sensitive
- Velocity - km/h has been disabled by inserting [disable="1"] in the mapping; the velocity will import in m/h by default when the import of "Velocity" treadmill settings is enabled.



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